1. Product Description

Thermal Ceramics newest fire rated duct wrap product is FireMaster DryerWrap for application on dryer vent ductwork in multi-unit housing where fire compartmentalization and life safety are major concerns. FireMaster DryerWrap is tested and UL Listed for 1-hour fire resistance on light gauge construction up to 7 in. diameter or 10 in. x 4 in. rectangular duct penetrating 1-hour rated wood joist gypsum floor, therefore providing Owners, Architects, and Engineers a viable and cost effective solution for safely routing dryer exhausts from the laundry room to the exit of the building. DryerWrap is 67% thinner, lighter, and appreciably more flexible than grease duct fire wraps currently available. The optimized thickness and approved 1in. compression or overlap joints provide for significant installation cost and space savings.

Product Features

• ½ in. thick, 8 pcf density
• High temperature insulation rated: 2100°F continuous exposure
• Underwriters Laboratory tested and Listed per ISO6944 and ASTM E814 (UL1479)
• Fully Encapsulated in scrim reinforced foil facing
• 1 in. compression or overlap at joints allows for installation inside 5 in. space for typical 4 in. round duct
• Installation using 16 gage galvanized steel tie-wire
• Tested on 30 gauge 7 in. round and 26 gage, 10 in. x 4 in. rectangular duct, typical of dryer and domestic kitchen range vent construction

Product Benefits

• Optimized installation cost
• Optimized installation space
• Easily cut
• More flexible than alternative wraps
• Improved safety with application specific testing

2. Physical Characteristics

Length x Width: 300 in. x 16 in. or 32 in. (7500mm x 400mm or 800mm)
Thicknxs: ½ in. (13mm)
Density: 8 pcf (128 kg/m³)
Encapsulation: Scrim reinforced foil (FSP)
Packaging: 1 roll per carton
Blanket Weight: 11 lbs (5kg), 16 in. (400mm) width, 22 lbs (10kg), 32 in. (800mm) width

3. Performance Specification

ISO 6944 1-Hour Rating
ASTM E814 (UL1479) 1-Hour T-Rating
ASTM E814 (UL1479) 1-Hour F-Rating
ASTM E54 -Flame Spread < 25
ASTM E54 -Smoke Developed < 50
ASTM E136 Pass
ASTM C518 -R-Value at 70°F 2.4
ASTM D6329 (Mold at 75 R.H.) Resistant

4. Codes Compliance and Laboratory Listings

2009 IBC Sections 716.6.2, 708, and 703
2009 IMC Section 504.2 and 604
UL Listing F-C-7055 and F-C-7059 for 1-Hour F-and T-Rating
UL Listing HNLJ.V-29 for 1-Hour Ventilation Duct Rating
ULC Listing FRD 28 for 1-Hour Ventilation Duct Rating

5. Installation

Materials and Equipment

• FireMaster DryerWrap
• 3 in. (75mm) adhesive backed aluminum foil tape
• Serrated knife recommend
• 16 Gage galvanized steel tie-wire
• Wire cutters

Installation: Cut insulation to the length of the duct to be wrapped, and tape seal cut edges using 3 in. (75mm) foil tape. For 4 in. (100mm) dryer ducts the as supplied 16 in. (400mm) width will be sufficient to provide for either a 1 in. (25mm) compression or 1 in. (25mm) overlap on the longitudinal joint. Ducts larger than 4 in. (100mm) diameter can be wrapped using 32 in. (800mm) wide DryerWrap utilizing a continuous wrap of duct lengths up to 25 ft (7m) and minimum 1 in. (25mm) overlap around the circumference of the duct, or cut to length sufficient to wrap around duct with a joint every 32 in. (800mm). This long joint may be tape sealed utilizing 3 in. (75mm) foil tape at the contractor's discretion. Adjacent blankets are installed with either a minimum 1 in. (25mm) compression or 1 in. (25mm) overlap at the joint between blankets. Utilizing minimum 16 gauge tie-wire, cut wire to sufficient length to wrap the insulated duct and make a small loop in one end. Wrap the tie-wire around the insulated duct on maximum 12 in. (300mm) centers. Where the insulated duct passes through 1-hour rated floor/ceiling assemblies, the penetration should be framed out and the annular space packed with scrap FireMaster insulation recessed minimum ½ in. (6mm) from top surface. The recesses shall be filled with a UL Listed firestop sealant per F-C-7055. Where the duct penetrates a membrane only, the maximum annular space and fill material shall be per F-C-7059.

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The integrity of FireMaster duct systems is limited to the quality of the installation.

Minimum 16 Gage galvanized steel tie wire installed on maximum 12” centers

FireMaster blanket (For Through Penetrations) packed into annular space (25% min. compression)

1-Hour UL Listed Floor/Ceiling Assembly

LEGEND

1. 1-Hour UL Listed Floor/Ceiling Assembly
2. Maximum 1-1/2 #2 galvanized wire (12" maximum)
3A. FireMaster DryerWrap with longitudinal and transverse compression or overlap joints
3B. Through Penetrations require a 12" long collar above the penetration
4A. Minimum 1/2" drywall penetrant joint (min. 1" long)
4B. FireMaster DryerWrap (For Through Penetrations) packed into annular space (25% min. compression)
4C. Tier wire must be 16 gage or smaller (minimum 1/2"

Minimum 1-inch compression or overlap joint

Max 1-Hour Rated Floor/Ceiling Assembly

Minimum 16 Gage Tie Wire on 12 Inch Centers

UL Listed Through Penetration Firestop Sealant per F-C-7055, F-C-7059 or FRD V-28

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